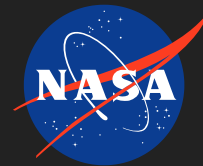


Production of Single Walled Carbon Nanotubes (SWNT) by catalytic disproportionation of CO in a continuous fluidized bed system ?

Phase II

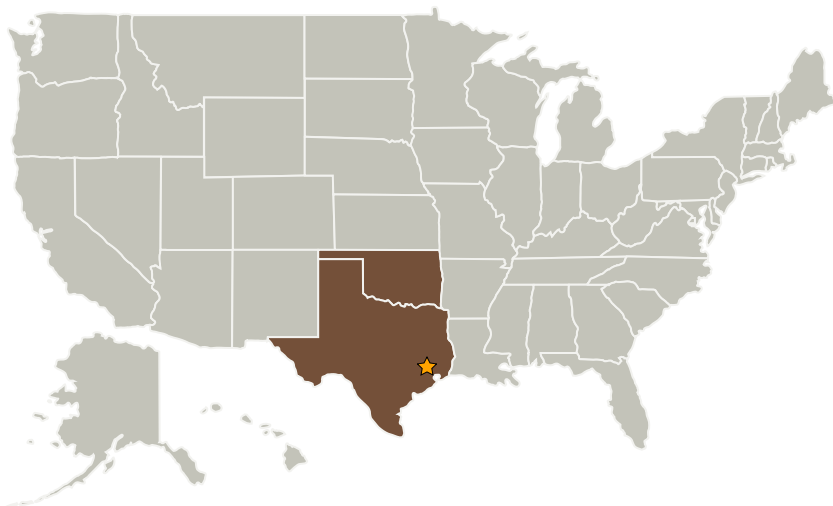
Completed Technology Project (2003 - 2005)



Project Introduction

The overall goal of SouthWest Nanotechnologies (SWeNT) is the development of superior technology for the large-scale manufacturing and marketing of nanotubes of unique quality for near-term specialty applications. The Phase I of this SBIR focused in demonstrating that SWeNT's process can be scaled-up to a continuous-mode operation. In the commercialization aspects, the company focused on developing strong partnerships with companies such as Dupont, ChevronPhillips, General Electric, Applied Nanotechnologies Inc., and Nomadics, who will use nanotubes for their end-products. The low operating costs and scalability of the SWeNT's process, coupled with its versatility for producing nanotubes with tailored structure are attractive characteristics that may make this technology the preferred mode of nanotube production. The expertise developed at SWeNT may position the company in a leading role in the field of nanotube-based materials. To consolidate the technology and boost the commercialization of SWeNT's products, phase 2 includes the expansion of the nanotube production capabilities and the development of applications to take advantage of the uniqueness of the SWeNT's process for tailoring nanotubes for each specific application. The targeted applications are directly relevant to NASA's stated goals and include structural and conducting composites, fuel cells, microelectronic parts, and field emission devices.

Primary U.S. Work Locations and Key Partners



Production of Single Walled Carbon Nanotubes (SWNT) by catalytic disproportionation of CO in a continuous fluidized bed system ? Phase II

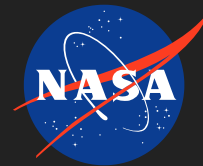
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Production of Single Walled Carbon Nanotubes (SWNT) by catalytic disproportionation of CO in a continuous fluidized bed system ?

Phase II

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Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Southwest Nanotechnologies, Inc.	Supporting Organization	Industry	Norman, Oklahoma

Primary U.S. Work Locations	
Oklahoma	Texas

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Project Manager:

Carl D Scott

Principal Investigator:

Leandro Balzano

Technology Areas

Primary:

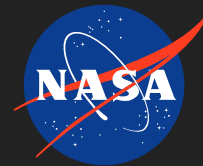
- TX12 Materials, Structures, Mechanical Systems, and Manufacturing
 - └ TX12.4 Manufacturing

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Production of Single Walled Carbon Nanotubes (SWNT) by catalytic disproportionation of CO in a continuous fluidized bed system ?

Phase II

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Technology Areas (cont.)

- └ TX12.4.1
Manufacturing
Processes